

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

15. (Currently Amended) An etching method using a dry etching apparatus provided with an upper electrode and a lower electrode being opposed to said upper electrode, said lower electrode comprising at least first and second electrodes, said upper electrode comprising one coil electrode overlapped with said first and second electrodes, the method comprising the steps of:

disposing a substrate on said first and second electrodes in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to said coil electrode;

applying a second high-frequency power to said first electrode disposed below a central portion of said substrate and applying a third high-frequency power to said second electrode disposed below corner portions of said substrate to supply an AC electric field between said coil electrode and said first and second electrodes;

generating plasma between said coil electrode and said first and second electrodes; and

etching a material film on said substrate disposed on said first and second electrodes,

wherein plasma wider than the width of the upper electrode is generated between said upper electrode and said lower electrode, and

wherein said second electrode is flush with said first electrode.

16. (Previously Presented) An etching method according to claim 15, wherein a frequency of each of said first, second, and third high-frequency power is the same.

17. (Previously Presented) An etching method according to claim 15, wherein said dry etching apparatus is an ICP-type etching apparatus.

18. (Currently Amended) An etching method using a dry etching apparatus, the method comprising the steps of:

disposing a substrate on a plurality of electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to a coil electrode opposed to said plurality of electrodes, said coil electrode overlapped with said plurality of electrodes;

applying a second high-frequency power to an electrode disposed below a central portion of said substrate and applying a third high-frequency power to electrodes disposed below corner portions of said substrate;

generating plasma with a magnetic field or an electric field between said coil electrode and said plurality of electrodes; and

etching a material film on said substrate disposed on said plurality of electrodes,

wherein plasma is generated outside edge portions of said substrate, and

wherein said plurality of electrodes are flush with each other.

19. (Original) An etching method according to claim 18, wherein said dry etching apparatus is one selected from the group consisting of a magnetron-type etching apparatus, an ECR-type etching apparatus, and a helicon-type etching apparatus.

20. (Currently Amended) A method of forming a wiring, the method comprising the steps of:

forming a conductive film on a substrate;

selectively forming a mask on said conductive film;

disposing said substrate on at least first and second electrodes provided in a chamber provided with a third electrode opposed to said first and second electrodes, said coil electrode overlapped with said first and second electrodes;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to said coil electrode;

applying a second high-frequency power to said first electrode disposed below a central portion of said substrate and applying a third high-frequency power to said second electrode disposed below corner portions of said substrate to apply an AC electric field between said coil electrode and said first and second electrodes;

generating plasma between said third electrode and said first and second electrodes; and selectively etching said conductive film on said substrate,

wherein plasma wider than the width of the upper electrode is generated between said upper electrode and said lower electrode, and

wherein said first electrode is flush with said second electrode.

21. (Original) A method of forming a wiring according to claim 20, wherein said wiring is a gate electrode or a gate wiring of a TFT.

22. (Currently Amended) An etching method using a dry etching apparatus, providing at least first, and second electrodes, and a coil electrode overlapped with said first and second electrodes, the electrodes being independent from each other, said coil electrode being opposed to said first and second electrodes, and at least first, second, and third high-power sources independently connected to each of said first, second and coil electrodes, respectively, the method comprising the steps of:

disposing a substrate on said first and second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma between said coil electrode and said first and second electrodes; and

etching a material film on said substrate disposed on said first and second electrodes,

wherein said first and second electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform,

wherein plasma wider than the width of the upper electrode is generated between said upper electrode and said lower electrode, and

wherein said second electrode is flush with said first electrode.

23. (Original) An etching method according to claim 22, wherein the dry etching apparatus is one selected from the group consisting of a magnetron-type etching apparatus, an ECR-type etching apparatus, and a helicon-type etching apparatus.

24. (Currently Amended) A method of manufacturing a semiconductor device using a dry etching apparatus,

providing at least first, and second electrodes, and a coil electrode overlapped with said first and second electrodes, the electrodes being independent from each other, said coil electrode being opposed to said first and second electrodes, the method comprising the steps of:

forming a material film on a substrate;

selectively forming a mask on said material film;

disposing said substrate on said first and second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to said coil electrode;

applying a second high-frequency power to said first electrode disposed below a central portion of said substrate and applying a third high-frequency power to said second electrode disposed below corner portions of said substrate;

generating plasma between said coil electrode and said first and second electrodes; and etching a material film on said substrate disposed on said first and second electrodes,

dividing said substrate in order to obtain a plurality of substrates, and

wherein said second electrode is flush with said first electrode.

25. (Original) A method of manufacturing a semiconductor device according to claim 24, wherein said semiconductor device is incorporated into an electronic device selected from the group consisting of a personal computer, a video camera, a mobile computer a goggle type display, a player, a digital camera, a front type projector, a rear type projector, a portable telephone a portable book, and a display.

26. (Previously Presented) An etching method comprising:

providing a radial line slot antenna supplying a microwave, at least first and second electrodes and at least first and second high-power sources independently connected to each of said first and second electrodes;

disposing a substrate on said first and second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma between said the radial slot antenna and said first and second electrodes by supplying the microwave from said radial slot antenna; and

etching a material film on said substrate disposed on said first and second electrodes,

wherein said first and second electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform,

wherein said first electrode is flush with said second electrode.

27. (Previously Presented) A method of manufacturing a semiconductor device comprising:

providing a radial line slot antenna supplying a microwave, at least first and second electrodes,

forming a material film on a substrate;

selectively forming a mask on said material film;

disposing said substrate on said first and second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to said first electrode disposed below a central portion of said substrate and applying a second high-frequency power to said second electrode disposed below corner portions of said substrate;

generating plasma between said the radial slot antenna and said first and second electrodes by supplying the microwave from said radial slot antenna; and

etching a material film on said substrate disposed on said first and second electrodes,

wherein said first electrode is flush with said second electrode.

28. (Previously Presented) A method of manufacturing a semiconductor device according to claim 27, wherein said semiconductor device is incorporated into an electronic device selected from the group consisting of a personal computer, a video camera, a mobile computer a goggle type display, a player, a digital camera, a front type projector, a rear type projector, a portable telephone a portable book, and a display.

29. (Currently Amended) An etching method comprising:

providing at least first, second, third, fourth, fifth, and coil electrodes and at least first, second, third, fourth, fifth, and sixth high-power sources independently connected to each of said first, second, third, fourth, fifth, and coil electrodes, said coil electrode overlapped with said first, second, third, fourth, and fifth electrodes;

disposing a substrate on said first, second, third, fourth and fifth electrodes provided in a chamber, wherein said first electrode is located below a central portion of said substrate and second, third, fourth and fifth electrodes are located below corner portions of said substrate;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma between said first, second, third, fourth, and fifth electrodes and said coil electrode overlapped with said first, second, third, fourth, and fifth electrodes; and

etching a material film on said substrate,

wherein said first, second, third, fourth and fifth electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform, and

wherein plasma is generated outside edge portions of said substrate, and

wherein said first, second, third, fourth and fifth electrodes flush with each other.